

501540
Rec'd PCT/PTO 13 SEP 2004

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
25 September 2003 (25.09.2003)

PCT

(10) International Publication Number
WO 03/079638 A1

(51) International Patent Classification⁷: H04L 29/06

(21) International Application Number: PCT/US03/07178

(22) International Filing Date: 11 March 2003 (11.03.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/363,589 12 March 2002 (12.03.2002) US
60/445,264 5 February 2003 (05.02.2003) US

(71) Applicant (for all designated States except US): KONINKLIJKE PHILIPS ELECTRONICS, N.V. [NL/NL];
Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventor; and

(75) Inventor/Applicant (for US only): EPSTEIN, Michael,
A. [US/US]; 10 Dorset Road, Spring Valley, NY 10977
(US).

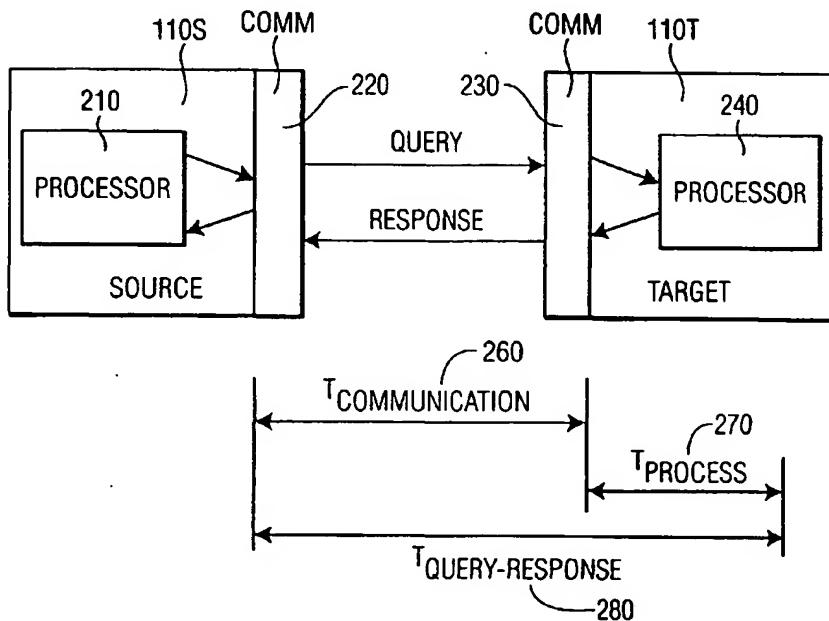
(74) Agent: HALAJIAN, Dicran; PHILIPS INTELLECTUAL PROPERTY & STANDARDS, 580 White Plains Road, Tarrytown, NY 10591 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: USING TIMING SIGNALS TO DETERMINE PROXIMITY BETWEEN TWO NODES



WO 03/079638 A1

(57) Abstract: A system and method facilitates a determination of proximity between nodes based on the communication time between the nodes. A source node communicates a query, or "ping", to a target node. The target node is configured to automatically send a response to the sender of such a query. The communication time is determined based on the time duration between the transmission of the query and receipt of the response at the source node. The communication time is compared to a threshold value to determine whether the target node is local or remote relative to the source node.